INTERNATIONAL SEARCH REPORT

Into national Application No PCT/CH 02/00685

a. classification of subject matter IPC 7 F25B41/06

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols) IPC 7 - F25B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

PAJ, EPO-Internal

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	PATENT ABSTRACTS OF JAPAN vol. 2003, no. 01, 14 January 2003 (2003-01-14) -& JP 2002 267279 A (ZEXEL VALEO CLIMATE CONTROL CORP), 18 September 2002 (2002-09-18) abstract, paragraph 20; figure 2	1,2
Α	EP 1 014 013 A (SANDEN CORP) 28 June 2000 (2000-06-28) column 4, line 8 -column 12, line 17; figures 1-4	1-3
A	DE 100 53 203 A (DENSO CORP; NIPPON SOKEN (JP)) 7 June 2001 (2001-06-07) column 5, line 40 -column 29, line 68; figures 1-36	1,2,4,6,

Further documents are listed in the continuation of box C.	Patent family members are listed in annex.			
Special categories of cited documents: 'A' document defining the general state of the art which is not considered to be of particular relevance 'E' earlier document but published on or after the international filing date 'L' document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) 'O' document referring to an oral disclosure, use, exhibition or other means 'P' document published prior to the international filing date but later than the priority date claimed Date of the actual completion of the international search	 'T' later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention 'X' document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone 'Y' document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. '&' document member of the same patent family Date of malling of the international search report 			
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nt, Fax: (+31-70) 340-3016	Authorized officer Boets, A			

INTERNATIONAL SEARCH REPORT



		PC17CH 02/00685			
	(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT				
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.			
Α	US 4 835 980 A (OYANAGI REINOSUKE ET AL) 6 June 1989 (1989-06-06) column 1, line 14 -column 3, line 35 column 10, line 22 -column 18, line 53; figures 1,10-15	1,3,6			
A	DE 44 30 468 A (DANFOSS AS) 29 February 1996 (1996-02-29) column 2, line 58 -column 3, line 68; figure	1,4,10			
A	US 4 878 355 A (BECKEY THOMAS J ET AL) 7 November 1989 (1989-11-07) column 2, line 13 -column 5, line 9; figures 1-5	1,4			
1	DE 195 06 143 A (DANFOSS AS) 5 September 1996 (1996-09-05) page 3, line 53 -page 5, line 45; figures 1-3	1,6			
Ą	WO 02 086396 A (CRANE CURTIS ;JUDGE JOHN (US); YORK INTERNAT CORP (US)) 31 October 2002 (2002-10-31) page 4, paragraph 19 -page 18, paragraph 64; figures 1-9	3,4,7			

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No PCT/CH 02/00685

Patent document cited in search report		Publication date			Publication date	
JP 2002267279	Α	18-09-2002	NONE	·	*****	
EP 1014013	A	28-06-2000	JP EP	2000179960 A 1014013 A		30-06-2000 28-06-2000
DE 10053203	Α	07-06-2001	JP JP DE US	2001201213 A 2001194017 A 10053203 A 6505476 B	\ \1	27-07-2001 17-07-2001 07-06-2001 14-01-2003
US 4835980	Α	06-06-1989	JP JP	5041904 B 63163739 A		24-06-1993 07-07-1988
DE 4430468	A	29-02-1996	DE AU DE WO EP US	4430468 A 2976695 A 69507491 D 9607065 A 0776449 A 5749238 A	\ 01 \1 \1	29-02-1996 22-03-1996 04-03-1999 07-03-1996 04-06-1997 12-05-1998
US 4878355	А	07-11-1989	NONE			
DE 19506143	A	05-09-1996	DE AU CN DE DE WO EP US	19506143 A 4783596 A 1175996 A 69624104 D 69624104 T 9626399 A 0811136 A 6018959 A	1 2 1	05-09-1996 11-09-1996 11-03-1998 07-11-2002 18-06-2003 29-08-1996 10-12-1997 01-02-2000
WO 02086396	Α	31-10-2002	US W0	2003014986 A 02086396 A		23-01-2003 31-10-2002

INTERNATIONALER RECHERCHENBERICHT

Interlationales Aktenzeichen
PCT/CH 02/00685

		PC1/CH 02/00685
	ung) ALS WESENTLICH ANGESEHENE UNTERLAGEN Bezeichnung der Veröflentlichung, sowell erforderlich unter Angabe der in Betrachl komm	
Kategorie°	Bezeichnung der Verönenluchung, soweil enordenlich unter Angabe der in Betracht komm	enden Teile Betr. Anspruch Nr.
A	US 4 835 980 A (OYANAGI REINOSUKE ET AL) 6. Juni 1989 (1989-06-06) Spalte 1, Zeile 14 -Spalte 3, Zeile 35 Spalte 10, Zeile 22 -Spalte 18, Zeile 53; Abbildungen 1,10-15	1,3,6
A	DE 44 30 468 A (DANFOSS AS) 29. Februar 1996 (1996-02-29) Spalte 2, Zeile 58 -Spalte 3, Zeile 68; Abbildung	1,4,10
A	US 4 878 355 A (BECKEY THOMAS J ET AL) 7. November 1989 (1989-11-07) Spalte 2, Zeile 13 -Spalte 5, Zeile 9; Abbildungen 1-5	1,4
A	DE 195 06 143 A (DANFOSS AS) 5. September 1996 (1996-09-05) Seite 3, Zeile 53 -Seite 5, Zeile 45; Abbildungen 1-3	1,6
A	WO 02 086396 A (CRANE CURTIS ;JUDGE JOHN (US); YORK INTERNAT CORP (US)) 31. Oktober 2002 (2002-10-31) Seite 4, Absatz 19 -Seite 18, Absatz 64; Abbildungen 1-9	3,4,7